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AUTHOR Hughey, Jim D.; Harper, Bena
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ABSTRACT

A study related the communication responsiveness of instructors to the affective and cognitive outcomes of students in basic speech communication courses. Specifically, the study investigated both the instructors' overall responsiveness and their responsiveness as climate makers. The communication responsiveness of instructors was measured by the Conversation Self Report Inventory, which gauges (1) the way people view the purpose of communication, (2) the communicative climate they create, (3) the way they transmit information, (4) the way they receive information, (5) the way they sequence messages, and (6) the way they cope with communication barriers. Student affective outcomes were judged from teacher/course evaluations provided by them, and cognitive outcomes were judged from scores on midterm and final examinations. Overall communicative responsiveness of instructors was found to be related to affective but unrelated to cognitive course outcomes. However, the analysis of climate making responsiveness revealed that students with supportive instructors registered significant cognitive gains in the course. (FL)

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INSTRUCTOR RESPONSIVENESS AND OUTCOMES OF THE BASIC COURSE

Jim D. Hughey
Bena Harper

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ABSTRACT

INSTRUCTOR RESPONSIVENESS AND OUTCOMES OF THE BASIC COURSE

by

Jim D. Hughey
Bena Harper

The communication responsiveness of instructors was related to affective and cognitive outcomes of the basic course. Both the instructor's overall responsiveness and responsiveness as a climate-maker were explored. The affective outcome was operationalized by teacher/course ratings given by students. The cognitive outcome was operationalized by the scores from a mid-term and final examination. Overall communicative responsiveness was found to be related to affective outcomes of the course but unrelated to cognitive outcomes. However, the analysis of climate making responsiveness revealed that students with supportive instructors registered significant cognitive gains in the course. It is concluded that more than one measure of cognitive learning should be employed when operationalizing the cognitive outcome of a course.

Jim D. Hughey is a Professor and Bena Harper is an Instructor of Speech Communication at Oklahoma State University, Stillwater, Oklahoma.

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In this paper, we relate the communicative responsiveness of the instructor to affective and cognitive outcomes of the basic course in speech communication. Past research has successfully tied communication variables to the affective and behavioral components of learning. But there is a lack of convincing evidence of a relationship between instructor-bound variables and cognitive course outcomes. Consequently, we re-examined the way that cognitive learning is usually operationalized and elected to approach the issue from a slightly different angle. After a brief review of the investigations that influenced our research strategies, we detail the procedures used in our study of twenty-four instructors. A discussion of the results of the multiple regression and discriminant analyses concludes this paper.

McLaughlin, Erickson, and Ellison (1980) suggest that there is considerable evidence to tie a teacher's communication of affect to student learning behavior. Using an interpersonal communication course setting, Andersen, Norton, and Nussbaum (1981) examined the impact of teacher communication behavior (solidarity, immediacy, and communicator style) on teacher ratings, behavioral commitment of students, and student performance on a course examination. They found a positive relationship between how students perceive a teacher's communication behavior and how they feel about that teacher and class. Furthermore, instructor communication variables were related to the behavioral intent of the student "to enroll in future courses and to apply course content

toward everyday situations . . ." (p. 390). However, the investigators did not find a significant, positive relationship between the communication behavior of instructors and the cognitive learning of students.

Not only is it difficult to link cognitive achievement with instructor-bound variables in speech communication, but other disciplines have found the same difficulty as well. For example, Kosinski (1978) in a study of a general biology course argues that there is no relationship between student achievement and instructor-bound variables. Scriven (1974) concludes that research has failed to establish "useable connections" between instructor-bound variables and outcome variables.

Perhaps one reason for the null findings is the manner in which researchers generally have chosen to operationalize cognitive achievement. Usually only a single, standardized examination is used. The use of a single measure of student learning is fixed in time. It does not permit us to chart the cognitive "ups and downs" that a particular student may experience during a semester. Moreover, these cognitive gains or losses experienced by students may be better reflectors of teachers' communicative impact than a single measure.

The investigations that were the bases of the Andersen, Norton, and Nussbaum article (1981) related single measures of early or midcourse achievement to communication variables and did not find an expected positive relationship. Commenting on their low but significant negative correlations, Nussbaum

and Scott (1979) posit that too much affect between teacher and student may detract from cognitive learning. Andersen (1979) offers four possible interpretations of her null findings. Among them, she suggests that "the impact of teacher immediacy may be seen in cognitive learning during a course but that a test early in the semester may be too soon for this relationship to be manifested" (pp. 554-555). To our way of thinking, both studies point to the desirability of including more than one measure of cognitive learning.

The findings of previous studies dealing with the basic course (both in and out of our field) influenced our research strategies. In exploring the relationship between the communication responsiveness of the teacher and teacher/course ratings given by the student, our approach is similar to the one taken by Andersen, Norton, and Nussbaum (1981). However, instead of dealing with student perceptions of the instructor's communicator style, we used self-reported estimates of instructor responsiveness in our study. Three modes of responsiveness were measured: Mastery (an assertive mode), Flexible (a supportive/adaptive mode), and Neutral (a communication-avoidance mode).

The lack of convincing evidence of a relationship between instructor-bound variables and cognitive course outcomes led us to depart from the typical research strategy of using a single examination as the sole measure of student achievement. We used a mid-term examination as well as a final examination to estimate cognitive learning. Andersen's suggestion (1979)

that teacher immediacy may impact on cognitive learning over time led us to examine the instructor's climate-making responsiveness in some detail.

Thus this paper reports our findings relating communication responsiveness to teacher/course ratings and course examinations. Stepwise multiple regression and discriminant analysis programs from SPSS (Hull and Nie, 1981) were used in processing the data. First, in the regression analysis, we pitted estimates of the overall responsiveness of twenty-four instructors against the measures of course outcomes. Second, in the discriminant analysis, we examined the climate-making patterns of instructor responsiveness in relation to the outcome variables.

Procedures

Our basic course is a hybrid course emphasizing both interpersonal and public communication. Students participate in interviews, private and public group discussion groups, and platform speaking experiences as well as take examinations and quizzes. They also produce written reports and outlines pertinent to oral communication experiences. In total there are 16 separate assessments of student performance.

Approximately 32 sections with a maximum of 30 students each are offered each semester. Most of the sections are taught by graduate teaching assistants that are pursuing a two-year Master's program in speech communication. Each TA teaches two or three sections of the course. All TAs undergo

a week-long training seminar at the beginning of each semester. Much of the seminar is devoted to training the TAs in the use of departmental criteria for the 16 assessments. The textbook (Hughey and Johnson, 1975) is competency-based and employs a behavioral-objective format.

Most of the students enrolled in the course come from the College of Business and the College of Arts and Sciences. It is a required course for most of the students in the course.

Measuring the Communication Responsiveness of the Instructor

The communication responsiveness of the instructor was measured by the Conversation Self Report Inventory (CSRI). Work with the CSRI has suggested that individual patterns of communication can be differentiated in terms of six major aspects: (1) the way the person views the purpose of communication, (2) the communicative climate he/she creates, (3) the way he/she transmits information, (4) the way he/she receives information, (5) the way he/she sequences messages, and (6) the way he/she copes with communication barriers. Early work with the CSRI focused on a Flexible Responsive mode of communication, referred to as the sensitive pattern (Lyzenga, 1978). The current version has added the Mastery Responsive and Neutral Responsive modalities to its measurement capabilities. In the inventory, each mode is considered in terms of the six conversational requirements listed below.

With the Mastery responsive (M) mode, a person chooses to impose his/her will on the conversation. The person opts to influence others, to generate a competitive climate, and to speak in a verbal-dynamic way. Listening is restricted to that information that will help him/her formulate responses and rebuttals that advance his/her views. The person achieves coherence by getting others to adopt his/her way of organizing messages. The person handles problems in conversations once they come to a head but does little to prevent problematic situations from occurring.

For the Flexible responsive (F) mode, a person chooses to respond by adapting or harmonizing him/herself with the conversation. The communicator focuses on understanding others, generating a supportive climate, speaking in an adaptive way with an emphasis on nonverbal output, and listening to anything a person has to say. The person adapts to the organizational patterns of others and is a problem preventor.

With the Neutral responsive (N) mode, a person chooses to detach him/herself from the conversation. This person appears to be aimless and uninvolved in conversations. The person seldom speaks, listens to very little, fails to follow the drift of the conversation, and avoids coping with problems that arise in conversations.

The M, F, and N scales were developed through factor analyzing a previous form of the CSRI (Leesaven, 1977). Neal and Hughey (1979) summarize the early validation studies of the CSRI. The inventory correlates with the expected dimensions

tapped by the "California Psychological Inventory" and Gordon's "Survey of Interpersonal Values." The Flexible Responsive scale produces correlations in the .46 - .38 (n = 89) range for the Sociability, Benevolence, Tolerance, and Good Impression scales of these measures. Other significant relationships were noted between the CSRI and the Social Presence, Responsibility, Achievement, Intellectual Efficiency, and Feminity scales. Leesavan (1977) summarizes other validation studies where scales on the CSRI were related significantly to communication satisfaction, management style, decision-making effectiveness, and violence proneness.

Each item in CSRI presents a Mastery responsive, Flexible responsive, and Neutral responsive alternative to a total of 60 conversational situations. Ten conversational situations are organized around each of the six requirements of a conversation (purpose, climate, etc.). Reliability coefficients are typically in the .70 to .88 range. For the current version of the CSRI (n = 2,305), alpha is .86 for the Mastery responsive scale, .75 for the Flexible responsive scale, and .88 for the Neutral responsive scale.

In addition to the overall responsiveness of the instructor, we were particularly interested in the climate-making patterns of the instructor. Mastery responsives create a competitive climate; Flexible responsives generate a supportive climate; and Neutral responsives are uninvolved in climate-making activities (they report they are in the background in conversations). We felt that the climate requirement is

reflective of a teacher's immediacy, which was defined by Andersen (1979, p. 543) as behaviors that "reduce physical and/or psychological distance between teachers and students." As such, we were interested in testing Andersen's presumption that cognitive learning may be affected by the student/teacher relationship as it develops over time. For the ten-item climate scales (n - 2,305), alpha is .55 for the Mastery (competitive) scale, .45 for the Flexible (supportive) scale, and .58 for the Neutral (uninvolved) scale.

The mapping of conversational patterns uses a technique that was employed by Kluckhohn and Strodtbeck (1961) in their study of value orientations. Communication patterns are conceived to be the ranking possibilities of the M, F, and N options:

M/F/N [Change Agent]	M/N/F [Critical Evaluator]
F/M/N [Interventionist]	F/N/M [Harmonizer]
N/M/F [Indifferent Responder]	N/F/M [Neutral Responder]

The M=F=N pattern [Situationalist] is also a possibility.

The method of estimating instructor responsiveness for the regression analysis was to count the number of times an instructor exhibited a given pattern for the six conversational requirements. Thus each instructor had a score (0-6) for each pattern described above.

In order to examine just the impact of climate-making on the outcomes of the basic course, we used a discriminant analyses in which the instructor's most preferred mode of climate-making served as the "groups" variable. In other words,

M/F/N and M/N/F instructors with their first-choice preference for generating a competitive climate comprised one group; F/M/N and F/N/M instructors with their first-choice preference for fostering a supportive climate comprised one group; and N/M/F and N/F/M instructors with their preferences for noninvolvement formed one group.

Measuring the Affective and Cognitive Outcomes of the Basic Course

Teacher/course evaluation is mandated by our university. The evaluation instrument is called the "Student Survey of Instruction," and it constituted our measure of affective outcome. The instrument is administered without the instructor's presence toward the end of a semester. The evaluations are not seen by the instructor until final course grades have been turned in. Students are asked to respond to this nineteen item questionnaire using a five-step Likert-type scale ranging from A (very high) to E (very low). Items 1 through 5 asked for the student to give some demographic information. Items 6 through 12 focus on the instructor and ask for responses on these seven items: (6) preparation and organization; (7) effort devoted to teaching; (8) presentation of material; (9) knowledge of subject; (10) ability to explain subject matter; (11) positive attitude toward students; and (12) overall instructor appraisal. Items 13 through 19 focus on the course and ask for responses on these seven items: (13) I learned a lot in this course; (14) the workload was

appropriate for the hours of credit; (15) assignments were relevant and useful; (16) testing and evaluation procedures were good; (17) students were adequately involved; (18) this course was worthwhile to me; and (19) overall, this was a good course. A composite rating of the teacher (the sum of items 6 through 12) and a composite rating of the course (the sum of items 13 through 19) were two additional indices used in the study. The student rating data were provided by the computer printout furnished by the university.

The mid-term and final exam grades made up our measures of the cognitive outcome of the basic course. Both the mid-semester (50 items) and the final examination (100 items) are prepared by the course director using input from those teaching the course. Each instructor submits five multiple-choice, four alternative items for each examination. Each instructor responds to a rough draft of the examination that is made up of all the submitted questions. The instructor also rates each item on a 0-5 scale (0 = throw the item out; 5 = one of the finest items I've ever seen). In a validation session with all instructors present, each item is reviewed; items scoring less than two are not retained for the examination. Other items are refined and polished. Alphas for the Mid-Term and Final are typically in the .75 - .85 range.

Data Processing

The data used in this study come from the fall semester of 1980 through the spring semester of 1982. For each of the

twenty-four instructors used in this study, the grade and evaluation data were taken from the semester that the instructor responded to the CSRI. Therefore, data from more than 50 sections taught by 22 TAs and two faculty members were utilized in this study. Computer printouts supplied by the university allowed us to determine the instructor's average teacher/course rating for each item in the Survey of Instruction. After standardizing the scores for the mid-term and final examinations, we used the exam averages as estimates of cognitive learning. Also, a cognitive gain score was calculated by subtracting the mid-term average from the final average.

The Results

Multiple Regression Analysis

Exhibit 1 presents the correlation matrix for the items on the "Student Survey of Instruction" and the patterns of communication of the instructors. Because no more than one variable entered any regression model, the significant relationship is noted by underlining and the asterisk.

Insert Exhibit 1

We found that the neutral responsive pattern with the last-place concern for flexibility (N/M/F) is the greatest liability to teacher/course ratings. Not only was there a

negative correlation for 15 of the 16 items of the Student Survey of Instruction, but four of them were significant, negative correlations. These four all related to the students' perception of the instructor's image. There was only one pattern, M/F/N, that produced no negative correlations on any item, and six of these were significantly positive correlations. All of these related to the students' perception, not of the teacher, but of the course. At least for our hybrid course, being more inclined toward mastery is a virtue. Being non-responsive is to be avoided.

Neutral responsive instructors (N/M/F) seem to create a negative image of themselves. They get significantly lower evaluation on their ability to present material, their ability to explain the subject, their attitude toward students, and in their overall teacher composite rating. These low ratings are not surprising given the N/M/F instructors' proclivity toward uninvolvement, indifference, and disorganization.

Mastery responsive (M/F/N) instructors seem to have the edge in creating a favorable image of the course. The M/F/N instructor gets significantly higher evaluations on items involving students' perceptions of workload, assignments, student-involvement, worth and excellence of the course, and on the composite course rating. Perhaps this more debater-like pattern with the characteristics of the change agent and the orientation of the persuader is indeed more successful in getting students to <u>want</u> to do what he/she wants them to do.

And no significant correlations emerged between instructor

responsiveness and measures of cognitive learning. However, it is interesting to note that the more responsive patterns of communication produce more positive correlations with the cognitive measures (8 out of a possible 9), whereas the least responsive patterns produce all negative correlations. Although we were unable to relate the overall responsiveness of the instructor to cognitive learning, we recalled Andersen's (1979) work with teacher immediacy and turned our attention to the instructor's responsiveness as a climate-maker.

Discriminant Analysis

After some preliminary testing, a final discriminant analysis was run that pitted affective and cognitive variables against the climate component of responsiveness. Only three climate patterns were entered as "group" in the analysis. These groups were determined according to the first-choice, or predominant, mode of climate-making--i.e., M, F, and N. It was felt that each pattern should be represented in the analysis by a minimum of three instructors. Five instructors had "uninvolved" N patterns, eight instructors had the more "supportive" F patterns, and eleven instructors had more "competitive" M patterns.

Exhibit 2 displays the means of instructors grouped according to their climate-making behaviors. The affective outcomes are presented in terms of a 4 point scale (i.e., they are like student grade points are with A = 4.00, etc.). The cognitive outcomes are presented in terms of z scores with a

"+" indicating greater achievement and "-" indicating poorer achievement. An examination of the means for the teacher/course ratings underlines the results of the analysis of overall instructor responsiveness. The uninvolved, less responsive instructors get the lowest ratings and the competitive, more responsive instructors get the highest ratings. In one case supportive instructors get ratings as high as competitive instructors (effort devoted to teaching). In all other cases, they get the second highest ratings of the three groups of instructors.

Insert Exhibit 2

However, students with competitive instructors do better on the mid-term than the final, but the reverse is true for students with supportive instructors. Students with supportive instructors achieve the greatest cognitive gains. Students with uninvolved instructors also exhibit cognitive gains.

In the final discriminant analysis, Wilk's stepwise procedure was used and the varimax option was employed. The univariate analysis revealed that only the cognitive gains variable was related to climate-making ($F = 5.02$; $df = 2,21$; $p < .02$). Three variables survived the $F > 1.0$ criterion for entry into the multivariate analysis. They were the cognitive gain estimate (lambda = .68; $p = .017$) and two teacher/course variables. The teacher/course variables which completed the

model were teaching effort (lambda = .46; p = .018) and the ability to explain the subject (lambda = .38; p = .016).

A two function model was produced with the first function accounting for 90% of the variance and the second accounting for 10%. The canonical correlation for both functions was .73 and .34 for function #2. With both functions in the model, lambda was .41 (p = .007); with function #1 removed, lambda was .89 (p = .300).

Exhibit 3 displays the rotated structure matrix along with the standardized discriminant coefficients indicated in parentheses. The most salient feature of function #1 is the cognitive gains estimate. The ability to explain the subject and teaching effort are the salient features of the second, nonsignificant function.

Insert Exhibit 3

Exhibit 4 displays the functions evaluated at the group centroids. In essence the analysis reveals that students with supportive instructors exhibit the greatest cognitive gains in the course. Competitive instructors are seen as best able to explain the subject. Uninvolved instructors are not seen as good explainers and their students do not register substantial cognitive gains in the course.

Insert Exhibit 4

Conclusions

The finding that more mastery responsive instructors achieve the highest teacher/course ratings and less responsive instructors achieve the lowest teacher/course ratings is in line with what we are about as a discipline. It would have been ironic to find that the colleges of education and business that send their somewhat reluctant students to us for communication training have been wrong all these years in their faith that responsive communicators somehow have an edge over less responsive communicators. But it is comforting to be able to add our bit of empirical substantiation to that of others (Andersen, Norton, Nussbaum, 1981). Since our study used measures of instructor self perception and measures of student perceptions, our findings are based on independent ratings from two separate sources rather than on intercorrelations among student perceptions.

Although we were unable to relate cognitive learning to the overall responsiveness of the instructor, we found, in the discriminant analysis, that the climate created by an instructor may be related to cognitive gains in the course. Rather than detracting from cognitive learning as Nussbaum and Scott (1979) hypothesize, it may be as Andersen (1979) suggests: it may take time for instructor responsiveness to pay off in terms of cognitive achievement. But we would like to extend her suggestion.

We wonder if different modes of responsiveness might be more efficacious at different points in a course. Our

data supports a tendency for students with competitive instructors to do better on the mid-term exam. Students with supportive instructors do less well. We wonder if students with competitive instructors might "toe the line" early in the course. But the competitive mode may not "wear well." On the other hand, students with supportive instructors may mistake supportiveness for leniency early in a course. However, after the results of an early exam are made known, students may re-evaluate the situation and conclude that supportiveness does not mean leniency. As they settle down to work, the supportive style of their instructor may enhance cognitive achievement. This explanation is further supported when one examines the means of uninvolved instructors. Like the students of the supportive instructors, students with uninvolved instructors do not excel on the mid-term exam. But, whereas the former do improve on the final exam, the students of uninvolved instructors do not. This would suggest that the difference in gain lies with the instructor rather than with the students.

We believe that these speculations are in line with the thoughts of Andersen (1979) but point to somewhat different motivations from what Andersen had in mind. It seems to us that the critical factors involved in the greater cognitive gains are both the amount of time taken to develop a relationship and the type of climate created. A causal research strategy is required to sort out the mechanisms underlying observed course outcomes. However, we are convinced that

student learning is better represented by multiple measures of cognitive achievement than it is by a single index of cognitive ability.

Because of the small sample used in our analyses, our findings should be viewed with caution; yet we believe our results are in line with others working in this area. We further believe that our independent measures of instructor and student perceptions along with our way of assessing cognitive gains strengthen the "useable connections" (Scriven, 1974) between instructors and course outcomes.

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EXHIBIT 1. Overall Communication Responsiveness of the Instructor Related to Affective/ Cognitive Outcomes of the Basic Course: Regression Analysis (n = 24)

Affective/Cognitive Variables	NMF Indifferent Responder	NFM Neutral Responder	FNM Harmonizer	FMN Inter-ventionist	MFN Change Agent	MNF Critical Evaluator
6 Prep. & Org.	-.39	.09	.03	.07	.13	-.15
7 Teaching Effort	-.26	.09	.03	-.08	.27	-.20
8 Present Material	-.43*	.16	-.05	.04	.26	-.18
9 Knowledge of Subject	-.40	.12	-.08	.05	.29	-.21
10 Explan. of Subject	-.49*	.11	-.13	.08	.35	-.23
11 Attitude Toward Student	-.46*	.11	-.01	.01	.35	-.31
12 Overall Teaching	-.38	.11	-.03	-.02	.29	-.19
13 Learned A Lot	-.29	.06	.10	-.16	.30	-.20
14 Workload Approp.	.00	.01	-.06	-.36	.43*	.04
15 Assign. Good	-.23	-.07	-.13	-.10	.41*	-.10
16 Testing Good	-.21	.20	-.29	.01	.35	-.23
17 Students Involved	-.30	-.22	-.15	-.04	.50*	-.11
18 Worthwhile Course	-.23	-.21	-.07	-.10	.44*	-.12
19 Overall A Good Course	-.29	-.04	-.05	-.13	.44*	-.20
Teach (composite rating)	-.43*	.12	-.04	.02	.29	-.23
Course (composite rating)	-.24	-.03	-.11	-.14	.45*	-.16
Mid-Term Exam	-.15	-.03	-.34	.26	.13	-.11
Final Exam	-.09	-.18	.03	.10	.07	-.16
Cognitive Gains (Final - Mid-Term)	-.12	-.30	.16	.08	.08	-.09

NOTE: Underlining indicated that a one variable multiple regression was produced ($p < .05$).

*$p < .05$.

EXHIBIT 2. Affective/Cognitive Course Outcome Means for the Three Climate-Making Groups: Discriminant Analysis (n = 24)

*Affective/**Cognitive Outcomes	Uninvolved Climate-Maker $\bar{X}$ (n=5)	Supportive Climate-Maker $\bar{X}$ (n=8)	Competitive Climate-Maker $\bar{X}$ (n=11)
6 Prep. & Org.	3.11	3.21	3.24
7 Teaching Effort	3.17	3.23	3.23
8 Present Material	2.74	2.90	3.03
9 Knowledge of Subject	3.19	3.34	3.41
10 Explan. of Subject	2.64	2.85	3.07
11 Attitude Toward Student	3.01	3.27	3.30
12 Overall Teaching	2.94	3.08	3.19
13 Learned A Lot	3.06	3.07	3.15
14 Workload Approp.	2.81	2.84	2.87
15 Assign. Good	2.95	2.97	3.06
16 Testing Good	2.67	2.68	2.74
17 Students Involved	3.27	3.33	3.41
18 Worthwhile Course	2.97	3.04	3.08
19 Overall A Good Course	2.96	3.05	3.07
Teach (composite rating)	2.97	3.13	3.21
Course (composite rating)	2.96	3.00	3.05
Mid-Term Exam	-0.07	-0.49	0.46
Final Exam	0.12	0.24	-0.10
Cognitive Gains (Final - Mid-Term)	0.19	0.73	-0.56

*Affective means are reported in terms of a 4.00 scale, similar to a grade point scale with A = 4.00, B = 3.00, C = 2.00, D = 1.00, F = 0.00.

**Cognitive means are reported in a z-score format with a "+" meaning greater achievement and a "-" meaning poorer achievement.

EXHIBIT 3. Rotated Structure Matrix (and Rotated Standardized Discriminant Function Coefficients) for Climate-Making: Discriminant Analysis

Variable/Descriptor	Function 1 Cognitive Gains r	Function 1 Cognitive Gains (coefficients)	Function 2 Teacher/Course Ratings r	Function 2 Teacher/Course Ratings (coefficients)
Cognitive Gains	.90	(1.05)	.10	(0.02)
10 Explanation of Subject	.08	(-0.36)	.66	(1.92)
7 Teaching Effort	.12	(0.73)	.19	(-1.46)

EXHIBIT 4. Functions Evaluated at Group Centroids: Three Climate-Making Groups

Group/Descriptor	Function 1 Cognitive Gains	Function 2 Teacher/Course Ratings
Uninvolved Climate-Makers	.32	-1.05
Supportive Climate-Makers	.92	-.34
Competitive Climate-Makers	-.81	.73